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L2: Entry 13 of 14

File: TDBD

Jan 1, 1976

TDB-ACC-NO: NN76012590

DISCLOSURE TITLE: Prewire Bond Etch. January 1976.

PUBLICATION-DATA:

IBM Technical Disclosure Bulletin, January 1976, US

VOLUME NUMBER: 18

ISSUE NUMBER: 8

PAGE NUMBER: 2590

PUBLICATION-DATE: January 1, 1976 (19760101)

CROSS REFERENCE: 0018-8689-18-8-2590

DISCLOSURE TEXT:

time 1p. A solution of acetic acid and distilled water cleanses aluminum metallization in pads and vias of semiconductor chips for improved automatic wire bonding operations. The cleansing is performed without corrosion of the aluminum metallization. - The process comprises the steps of immersing chips in a fifty percent by weight *controlled level* electronic grade acetic acid and fifty percent by weight distilled water solution *for fifteen to thirty seconds, followed by* (1) a rinsing in distilled water for five minutes, and (2) an isopropyl alcohol rinse to aid drying. - The acetic acid/distilled water cleansing solution removes AL(2)O(3) from the chip aluminum as well as organic materials, e.g., photoresist remaining in the plated via holes. The clean uniformly prepared metal surfaces improve wire bonding operations to metal surfaces of the chip.

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TITLE: Prewire Bond Etch. January 1976.

Disclosure Text (1):

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WEST*Cited***End of Result Set**

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103

L2: Entry 14 of 14

File: DWPI

Aug 2, 1982

1/45
try

DERWENT-ACC-NO: 1982-75557E

DERWENT-WEEK: 198236

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TITLE: Thin metal layer magnetic recording medium - has improved lubricity and corrosion resistance by using aliphatic acid adsorbed on surface

PRIORITY-DATA: 1981JP-0009295 (January 23, 1981)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 57123536 A	August 2, 1982		003	

INT-CL (IPC): C23F 11/00; G11B 5/72; H01F 10/00

ABSTRACTED-PUB-NO: JP57123536A

BASIC-ABSTRACT:

Aliphatic acid (e.g. acetic acid, propionic acid, oleic acid, stearic acid etc. is adsorbed on surface of ferromagnetic metal thin layer comprising cobalt, cobalt alloy etc. which is provided on a magnetic substrate. Then the surface is rinsed in liquid or steam as a solvent (e.g. dionised water, methyl alcohol, ethyl alcohol. ethyl acetate washing the chemically unadsorbed part. Corrosion resistance and lubricity are improved.

In an example, ferromagnetic thin-layer of Co(80) + Ni(20%) was treated with soln. comprising 1 ml acetic acid (98%) + 500 ml deionised water at 25 deg.C for 10 min. After taking out the thin-layer was washed with deionised water sufficiently and dried with methyl alcohol and warm acetone. The obtd. magnetic recording medium has contact angle (to water) of 40-50 deg.C and there was no corrosion after 3 weeks at 60 deg.C, 90% relative humidity.

ABSTRACTED-PUB-NO: JP57123536A

EQUIVALENT-ABSTRACTS:

Set Name Query
side by side

Hit Count Set Name
result set

DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ

<u>L11</u>	L10 and l1	8	<u>L11</u>
<u>L10</u>	((134/3)!.CCLS.)	1800	<u>L10</u>
<u>L9</u>	((corrosi\$ or anti-corrosi\$) with acetic) same (rins\$ or clean\$) same (wafer or substrate or semiconductor)	5	<u>L9</u>
<u>L8</u>	(corrosi\$ or anti-corrosi\$) with acetic	1318	<u>L8</u>
<u>L7</u>	(corrosi\$ or anti-corrosi\$) same acetic	2727	<u>L7</u>
<u>L6</u>	L1 and (non corros\$ or anti corros\$)	1	<u>L6</u>
<u>L5</u>	L1 same (non corros\$ or anti corros\$)	0	<u>L5</u>
<u>L4</u>	L1 same (non-corros\$ or anti-corros)	0	<u>L4</u>
<u>L3</u>	L1 and (corrosi\$ or microcorrosi\$)	54	<u>L3</u>
<u>L2</u>	L1 same (corrosi\$ or microcorrosi\$)	14	<u>L2</u>
<u>L1</u>	((semiconductor or wafer or substrate) with (metal\$ or copper or aluminum or titanium)) same (rins\$ or wash\$ or clean\$) same acetic	157	<u>L1</u>

END OF SEARCH HISTORY

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L3: Entry 49 of 54

File: JPAB

Jun 6, 1988

PUB-NO: JP363133535A
DOCUMENT-IDENTIFIER: JP 63133535 A
TITLE: CLEANING

PUBN-DATE: June 6, 1988

INVENTOR-INFORMATION:

NAME

COUNTRY

NAKAMURA, YASUO

ASSIGNEE-INFORMATION:

NAME

COUNTRY

SONY CORP

APPL-NO: JP61280492

APPL-DATE: November 25, 1986

US-CL-CURRENT: 134/40

INT-CL (IPC): H01L 21/304; B08B 3/08

ABSTRACT:

PURPOSE: To eliminate the formation of acid due to cleaning and to contrive to inhibit the generation of corrosion by a method wherein, after a matter to be cleaned is cleaned with a cleaning fluid, which is turned into acid by adding water, the cleaning fluid is removed with a liquid, which makes the cleaning fluid dilute, without increasing a hydrogen ion concentration.

CONSTITUTION: A semiconductor device is cleaned with a chemical, whose main component is fuming nitric acid, in order to remove dust and fats and oils, which are adhered on the device, and thereafter, the device is dipped in a liquid, which makes the fuming nitric acid dilute, without increasing a hydrogen ion concentration before being rinsed with pure water and the fuming nitric acid is removed. As a liquid for diluting this fuming nitric acid, it is better to use the mixed liquid of such an acid as phosphoric acid and acetic acid and an ammonium hydroxide solution and so on as a buffer solution for preventing metal ions from adhering in the manufacturing process of the semiconductor device. The desired pH can be selected according to the mixing ratio of them. When the fuming nitric acid is removed with such a buffer solution and so on, so strong acid is produced even in an instantaneous manner, and moreover, a strong acid is never produced even at the time of rinsing with pure water after the removal of the fuming nitric acid. Accordingly, it can be prevented for an Al wiring to be corroded and disconnected due to cleaning.

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L3: Entry 49 of 54

File: JPAB

Jun 6, 1988

DOCUMENT-IDENTIFIER: JP 63133535 A

TITLE: CLEANING

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